National Science Foundation

2006 E-Government Report

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I. Overview of Agency Implementation of the E-Gov Act and Description of an Internal Agency Specific E-Gov Initiative

NSF continues to serve as a leader and innovator in government-wide efforts to automate and streamline end-to-end grants management activities, enhancing our internal systems to make it faster and easier for the grantee community to access our grants-management tools. NSF's success in electronic grants management is based on a solid track record of focusing on efficient business processes, innovative technologies, and strategic collaboration with the research community.

A. Implementation of the E-Gov Act: NSF Leadership in Government-Wide EGov Initiatives

1. Grants.Gov

Grants.gov allows organizations to electronically find and apply for grant opportunities from all Federal grant-making agencies. NSF is an active partner in the Grants.gov initiative. NSF has made all NSF funding opportunities available on Grants.gov, by posting all funding opportunities to Grants.gov's "Find" capability. Also, in FY06, 79% of FY06 funding opportunities were posted to Grants.gov's Apply capability and 760 proposals were submitted to NSF through Grants.gov.

2. Grants Management Line of Business

NSF is the co-leader of the government-wide eGovernment Grants Management Line of Business (GMLoB) along with the Department of Health and Human Services. GMLoB's goal is to develop a solution to support end-to-end grants management activities and promote citizen access, customer service, and agency financial and technical stewardship. The end result will be a more streamlined, transparent and efficient government-wide grants management process.

In February 2006, the Office of Management and Budget (OMB) designated NSF as one of three consortia leads for the GMLoB initiative. As a consortium lead, NSF is responsible for planning, leading, and directing NSF's GMLoB consortium in defining a common technical solution to meet the back-office needs of member agencies and the needs of the external research community.

As part of establishing the NSF consortia, NSF worked collaboratively with the US Department of Agriculture, Cooperative State Research, Education and Extension Service (USDA/CSREES) to establish a pilot project that focused on improving communication to the customer. This pilot, released August 14, 2006, explored the ability of an agency to provide a grants management application service to another agency. NSF enhanced the NSF Proposal Status module to allow NSF customers to access one site to check the status of proposals submitted to NSF and proposals submitted to USDA/CSREES. Another major element of this pilot was the use of eAuthentication, which allowed CSREES users to log into the pilot using their CSREES credentials rather than having to use FastLane credentials.

As NSF's first step as a Grants Management consortia lead, the pilot has already been a great success in establishing partnership with other federal agencies and promises tangible benefits to the research community as an easy-to-use portal for proposal status information.

Our significant progress and contributions in the E-Government arena, have led to NSF successfully maintaining its "Green" on the President's Management Agenda scorecard for Expanded e-Government (e-Gov) for five consecutive years.

B. Internal Agency-Wide E-Government Initiative Highlight

In addition to our external GMLoB and Grants.gov efforts, NSF has also implemented a number of E-Gov initiatives internally. Electronic Jacket (eJacket) is one of NSF's most significant investments in next generation eGovernment capabilities.

1. Electronic Jacket (eJacket)
NSF plays a critical role in supporting fundamental research, education, and infrastructure at colleges, universities, and other institutions throughout the country. NSF leverages innovative grants management tools to support and enable scientific discovery and innovation, fulfilling its mission primarily by making merit-based grants, supported by a sophisticated electronic grants management system. FastLane is the premier customer focused, web-based grants management suite of tools (with more than 40 functional modules) that serves as the conduit for over 7,000 registered FastLane organizations and 250,000 registered customers. NSF considers the new eJacket a primary building block for its "Next Generation Grants Management System," as it is the core internal system used by NSF to process proposals for research opportunities. eJacket, NSF's internal, web-based, end-to-end electronic proposal solution, processes all proposals submitted to NSF via FastLane and Grants.gov, and is only accessible via the Internet and is fully Section 508 compliant. eJacket eliminates paper files and allows simultaneous access to critical program records and transactions.

eJacket is a key electronic work horse, supporting the processing of 42,200 proposals last fiscal year, and is a core component for both consolidating multiple grants applications and implementing business process improvements in the Foundation. eJacket is the cornerstone of NSF's IT system modernization efforts, leveraging innovative technology to optimize business processes. Implemented in a phased approach, modernization efforts include elimination of all remaining processes and continued reduction of proposal decision processing time. In FY06, NSF accessed 137,871 distinct proposals, 1,975,260 times using eJacket. Over 99% of non-award actions were processed in eJacket, compared to the legacy client-server system, reducing processing time by 15 days for all non-awards.

Based upon customer feedback and suggestions, we have implemented several enhancements to eJacket in the past year, significantly increasing eJacket's efficiency and effectiveness, to include:

Committee of Visitors (COV) Module: NSF relies on the judgment of external experts to maintain high standards of program management, to provide advice for continuous improvement of NSF performance, and to ensure openness to the research and education community served by

the Foundation through Committee of Visitor reviews. The Committee of Visitors (COV) module enables COV members to view jackets and related documentation for their COV electronically. The members are given access to a select group of proposals and related documentation to review. The COV module also features the administrative capabilities that NSF Staff need to manage a COV once jackets and panelists have been assigned via Proposal and Reviewer System (PARS). Enhancements include incorporating the Conflicts of Interest (COI) functionality, enabling users to electronically view jackets and documents (versus printing documents). Since June 2005, 24 out of 26 COV participants used eJacket to view jacket (proposal) documentation, significantly reducing the amount of paper and effort expended to prepare for a COV meeting. The COV module incorporates the Conflicts of Interest (COI) functionality that allows users to identify conflicts with people, proposals, and institutions. We also streamlined collaborative proposal processing; allowing customers to process collaborative projects with one action and apply data to all collaborative pieces at the same time.

eCorrespondence: This eJacket email functionality allows program staff to automatically send email messages when a particular action is accomplished. Because paper correspondence is not required, in August 2006, we eliminated the paper Award Letter, replacing this time-consuming effort with eCorrespondence, which has become the primary option for communication with external customers. Over 18,000 pieces of correspondence are now sent electronically per month, rather than via traditional mail.

eJacket continues to provide more customer-friendly capabilities, enhanced accessibility, and an efficient, streamlined workflow, resulting in significant efficiency and productivity savings.

C. NSF Outreach Activities for the Research and Education Community

NSF is committed to maintaining an ongoing dialogue, building new communication networks, and establishing outreach activities with the grantee community to seek out innovative ways to leverage IT in NSF's proposal and award processes. NSF conducts outreach efforts through two Regional Grants Conferences, composed of workshops and presentations led and facilitated by NSF staff. These conferences provide a unique opportunity to converse with NSF's customers, partners, and stakeholders on potential IT improvements to the proposal and award processes. Outreach activities also include presentations at meetings of the major professional societies for research administrators, such as the Society of Research Administrators (SRA) and the National Council of University Research Administrators (NCURA). Foundation staff provides "NSF Update" sessions on significant issues and policy changes relevant to the grantee community, including changes to the ways information technology is used in the NSF proposal and award processes. The Foundation is also active in the Federal Demonstration Partnership, testing innovative approaches to streamline processes and systems for Federally-supported research and education. On the Research Business Models (RBM) Subcommittee of the Committee, which is a charted subcommittee of the National Science and Technology Council's Committee on Science, NSF both co-chairs and has members on two working groups. More information about NSF outreach activities is available at www.nsf.gov/events/.

D. Performance Goals and Cost Savings

NSF is a Federal leader in the use of information technology, actively promoting electronic business solutions that are simpler, faster, more accurate, and less expensive. NSF serves as an effective and capable steward of the taxpayer's resources by evolving and advancing the agency's paper-based work processes to capitalize on technology-enabled methods of conducting business. As a result of the technological innovations implemented, NSF is a genuine E-Government success story. In FY 2006, NSF eGovernment applications processed more than:

- 42,200 Electronic Proposals (over 99.9% of all proposals)
- 195,000 Electronic Reviews
- 9,000 Electronic Graduate Research Fellowship Applications
- 27,000 Electronic Grantee Progress Reports
- 16,500 Electronic Cash Receipts
- $5.62 Billion Disbursement of Funds

Prior to the Foundation's current electronic environment, NSF relied on a manual paper grant proposal process. Today, proposal reviewers have the option of reviewing proposals in a secure, online web environment, on CD, or by requesting a printed copy. Requests for printed proposals declined 28% from FY05 to FY06.

NSF has also utilized its website to ensure cost savings as demonstrated by the 14% decrease in the metered mail cost in the NSF Mail Center ($107,381 in FY05 and $93,857 in FY06), representing a decrease in postage costs of 60% from FY 2002. In 2006, the number of customer visits to the NSF website was 7,816,426, representing a 14% increased level of traffic since FY 2005. This year, 45,557,754 NSF web pages were requested, with 2,232,169 general document downloads and 119,320 Grant Proposal Guide downloads. As more customers use the NSF website to retrieve e-publications, annual printing and postage costs will continue to decrease.

E. Availability of Government Information

NSF is dedicated to sharing information and serving as a resource for *all* interested parties, and provides several options for customers who may not have access to the Internet:

- NSF Information Center: (703) 292-5111 or info@nsf.gov (TDD: 703-292-5090, FIRS: 800-877-8339).
- NSF Publications: Requests for publications may be made by phone (703) 292-7827, or by mail: NSF Publications, Suite P-60, Arlington, VA 22230
- Science Information Services (NSF Library): The NSF Library houses selected books relevant to mission and activities of the Foundation. Customers may borrow books through interlibrary loan at their local library. The NSF Library may be reached via email at library@nsf.gov.

II. NSF Process for Information Dissemination via the Public Website

A. NSF Website Management

The NSF website (http://www.nsf.gov/) is the agency's primary interface for disseminating information to scientists, engineers, university administrators, educators, business, vendors, the media, policy makers, and the interested general public. From an organizational perspective, NSF is composed of science and engineering Directorates and administrative offices that collaboratively provide content and manage the NSF website. Content for the website is provided by the organizations that have traditionally provided the content via printed publications.

NSF has specific policy, procedures and best practices with regard to web authoring and content, detailed in the *NSF Web Development Policy and Standards Manual* http://www.nsf.gov/web/guide/ .

All NSF web content is developed for the purpose of promoting and supporting NSF's mission. The NSF website is accessible to all, including those with disabilities and those without reasonable access to advanced technologies. NSF also integrates industry best practices for web technologies such as XML, HTML, JavaScript, RSS, and CSS, and these best practices are documented in the *Manual*, which is updated periodically.

To help ensure compliance with standard policies and practices, NSF maintains a portal for web development on its Intranet, which has links to the *Manual* as well as a wealth of internal resources such as usage statistics, scripts, templates and graphics. The "Webdev" portal also is the entry point to our Webstage Manager application, which is used by all NSF webmasters to review, approve, and publish HTML, PDF, and other "static" files to the public web server. Webstage Manager maintains a log of all publish actions, as well as required certifications that each content item adheres to NSF policies for privacy, accessibility, and security.

The core content of the NSF website is managed by an internal content-management system, ePublish. ePublish provides NSF staff with the tools to publish information in five discrete categories of content: Funding opportunities and program information, News, Events, Discoveries (NSF research results), and Organizational information. The system provides basic online review and approval mechanisms, as well as an administrative console that lets each organization manage and customize the content on its home page. The News module is used both by the Office of Legislative and Public Affairs (OLPA) for preparing and disseminating official NSF news releases, and by each NSF Directorate and Division for publishing news and announcements specific to its audience.

The largest component of ePublish is the Program Information Management System (PIMS), an innovative content-management system that was one of the first of its kind in the Federal Government to provide a standard, template-driven approach to describing research and education programs and specific funding opportunities. A reengineered PIMS, with a much more flexible and user-friendly interface and more advanced tools for building XML-based workflows,

was introduced in 2006. This version also enhances the system's ability to store XML snapshots of data, which are used to let reviewers easily compare different instances of a given funding opportunity or program description.

ePublish and the new PIMS are products of the new model of collaborative development NSF fostered three years ago by establishing the Web Advisory Group (WAG) and the Web Implementation Group (WIG) to ensure optimum oversight and management of the website. WAG is the policy body, chaired by the Director of Office of Legislative and Public Affairs and composed of senior NSF staff, representing diverse interests within the Foundation. WIG, chaired by the chief of the Information Dissemination Branch of the Division of Administrative Services, addresses the technical and design considerations for the website, implementing and managing overall standards for consistent appearance and presentation quality, achieving economies of scale by identifying requirements and centralizing resources, and coordinating the organizational and navigational features of the site.

B. NSF Web Content for User Audiences

The home page for the NSF Web site allows users to select content organized for their needs: as applicants for funding, as educators or students, as the press, or as the interested public. The "MyNSF" feature allows users to create a personalized NSF Web page by selecting topics/information that is most important to them. The "MyNSF" functionality provides e-mail alerts to subscribers when new information is posted in the categories they select and also now includes a range of Really Simple Syndication (RSS) feeds for specific content types.

The NSF website provides information that it targeted to four primary user groups: the research and education community that competes for NSF research awards; the public, including K-12 educators; public information/media professionals; and those who use NSF statistical information on science and engineering.

1. The Research & Education Community
Our primary audience is the research and education community. Potential applicants for NSF support use the Web site for information on sources of funding, procedures for application, and how to manage an award. Most of the information on these pages is prepared, reviewed, approved, and published automatically to the Web from ePublish and PIMS to present the most current information possible.

2. The Public
The NSF mission includes improving public understanding of public policy issues involving science and technology, through support for programs of informal science and engineering. This is accomplished primarily through media projects, museum exhibitions, and curriculum support. The NSF Website presents a changing array of stories and images about Discoveries related to NSF supported projects, along with links to science stories in the media, and on-line curriculum resources for teachers and students.

3. Public Information Professionals
While some Web content is designed for the public to search and use directly, some content is designed to make information on recent discoveries highly accessible to public information professionals, to encourage its use in media beyond the NSF Website. This includes images and films packaged for professional use as well as contact information for the public information office at NSF.

4. Science and Engineering Statistics
The NSF Act calls on the agency to collect and present data on U.S. science and engineering. In the last 10 years the NSF has placed a library of detailed statistical data on line, from detailed statistical tables to current topical updates. Thousands of pages of data on measures of science and engineering activity are available to researchers and analysts from the NSF Web site.

5. Other Users
Many pages on the Web site are maintained for the convenience of unanticipated users: information for visitors, those looking for job or contracting opportunities, and those who need information on the agency itself, related to such topics as budget, organization, performance assessment or policy. In addition, there are Web pages maintained independently by the National Science Board and the NSF Office of Inspector General, both of whom post some regular and special public reports.

C. Web Currency and Ease of Search and Navigation

1. Maintaining Current Content
NSF focuses on two features to maximize the usability of the Web site for users: maintaining up-to-date information, and making the content conveniently searchable.

NSF identified four primary user groups of its external Web site (www.nsf.gov): the research and education community that competes for NSF research awards; the public, including K-12 educators; public information/media professionals; and those who use NSF statistical information on science and engineering. Content and navigation is developed to meet the specific needs of these groups. Before release the newly designed pages are extensively tested for usability, and user statistics and voluntary user surveys are continually monitored to identify gaps and needed improvements.

To maintain currency, major Web content areas are updated automatically. These include program information, information on existing awards and funding, staff contact information, and lists of available publications. When any office in NSF takes formal action to update information on programs or staff, the same data automatically updates the external Web site. Updated internal records of award status and funding actions are available to the Web site daily. And when a publication is prepared, the approval system also makes that record available to the Web site.

To ensure that information for potential awardees is never out of date, NSF requires that all program information is reviewed and updated annually. In addition the process of approving new program information includes an automated check to ensure that potential applicants have a

minimum of 90 days prior to the proposal deadline or target date.   As a result, the information on the external NSF Website is both up-to-date and highly usable for potential award applicants.

2. Ease of Search and Navigation
Ensuring ease of searching for information on the NSF Web site is a primary focus. Along with searches of the entire website, nsf.gov offers searches specific to research fields, and databases for awards, funding, calendar/events, and publications. Databases linked to the web site can be searched by recentness, topic, or by A to Z index. NSF uses formal information models such as XML schemas, document type definitions (DTDs), and Really Simple Syndication (RSS) to categorize, disseminate, and share information stored in systems.

D. Web Content, Priorities, and Schedules

As required by EGov Act Section 207 (f)(2) NSF's inventory of website content, priorities and schedules can be found on NSF's Website at http://www.nsf.gov/policies/egov_inventory.jsp

E. NSF Information Available on the Internet

NSF has three main offices that determine what content is made available on the NSF website: the Office of Legislative and Public Affairs (OLPA); the Budget, Finance and Award Management (BFA) Policy Office; and the Division of Science Resources Statistics (SRS). OLPA oversees and manages the public components of the NSF website, BFA provides review and clearance for NSF policy and program information and SRS provides statistics on scientific and engineering resources to fulfill NSF's legislative mandate. A detailed description for each of these offices follows.

1. Office of Legislative and Public Affairs (OLPA)
The Office of Legislative and Public Affairs (OLPA) uses the NSF website to communicate information about NSF's activities, programs, research results, mission and policies. OLPA employs a wide variety of communication tools and techniques to engage the general public and selected audiences, including Congress, the news media, state and local governments, other Federal agencies, and research and education communities. OLPA's five sections (Congressional Affairs, Media and Public Information, Communications Resources, Issues Development and Special Projects) and contract staff collaborate with NSF's research directorates and offices, and with grantee institutions and other partners, to produce web content for these audiences. "Public" content includes:

- Discoveries – brief stories highlighting research results, focusing on some of the important discoveries and innovations that began with NSF-supported research.
- Special reports – mini-web sites that provide in depth looks at the latest advances and hot topics in science, engineering and education research.
- Research overviews – these pages identify the "big questions" in each field of science, engineering and education research supported by NSF and show how NSF-funded researchers are addressing them.
- Multimedia Gallery - photos, illustrations, animations, sound bites, radio and video programs, and pod casts to help the public learn about and explore fascinating advances in science and engineering.

- News and story ideas – news releases, media advisories, and fact sheets providing coverage of the latest advances at the frontiers of science, mathematics, and engineering, as well as agency activities and messages to the general public and other external audiences; also news releases published by grantee institutions and other partners.
- Legislative information including major NSF-related legislation in Congress, a calendar of hearings, hearing testimony and summaries, NSF budget information, and program information by state.
- Speeches, statements, and presentations by the NSF Director and Deputy Director in communicating the mission and work of the Foundation to a variety of audiences such as state governments, business and industry, and foundations and organizations.
- Now Showing – covering the wide variety of educational and informational projects, including films, museum exhibits and television and radio programs, supported by NSF to promote public understanding of science, mathematics, engineering and technology.
- Classroom resources - a diverse collection of lessons and web resources for classroom teachers, their students, and students' families, arranged by research area

OLPA has created a web management plan to develop and maintain these components. Priorities are set and revised on a weekly basis.

2. Office of Budget, Finance & Award Management (BFA)

a) Policy Office
The Office of Budget, Finance & Award Management's (BFA) Policy Office, located in the Division of Institution and Award Support, is responsible for the development, coordination, issuance, and communication of NSF pre- and post-award policies for NSF's assistance programs, and provides official clearance approval for all NSF proposal-generating documents. The Policy Office develops and issues grant, cooperative and other agreement policies, procedures and practices that are responsive to both Federal law and regulations and yet are sufficiently flexible to meet the needs of the diverse national and international programs of the NSF.

Policies, procedures and implementing guidance may be developed in response to administrative initiatives published by the Office of Management and Budget, Office of Federal Procurement Policy, General Services Administration and other Federal agencies involved in the oversight of grant activities. These initiatives, as well as proposed and newly enacted legislation, regulations and policies relating to grant activities are evaluated for possible implications and impact on the NSF grant activities, and the NSF grantee communities.

The Policy Office has responsibility for various manuals and publications that provide Foundation-wide proposal processing and award administration guidance, including the following:

- Grant Proposal Guide (GPG) - The NSF Grant Proposal Guide provides guidance for the preparation and submission of proposals to NSF and may be found online at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg.

- Grant Policy Manual (GPM) - The Grant Policy Manual is a compendium of basic NSF policies and procedures, and addresses the NSF award process from issuance and administration of an award through closeout. The GPM is available online at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpm.

- Grant and Agreement Conditions - The NSF website contains links to the terms and conditions which govern various types of awards. The terms and conditions are available online at http://www.nsf.gov/funding/research_edu_community.jsp under "How to Manage Your Award."

All of these documents, as well as Frequently Asked Questions and information regarding the NSF proposal and award process, are available on the Policy Office Home Page at: http://www.nsf.gov/bfa/dias/policy/.

b) Budget Division

The Budget Division maintains the Budget Internet Information System within NSF's public web site. The site contains information about obligations and funding rates by fiscal year, state, and institution, in addition to budget levels organized by account, dating back to the inception of the Foundation. The site is used internally by NSF staff and by external stakeholders, including colleges and universities, congressional staff, and other government agencies.

3. Division of Science Resources Statistics (SRS)

The Division of Science Resources Statistics (SRS) fulfills the legislative mandate of the National Science Foundation Act to "provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources, and to provide a source of information for policy formulation by other agencies of the Federal Government. . ."

To carry out this mandate, SRS designs, supports, and directs periodic surveys as well as a variety of other data collection and research projects. SRS surveys yield the materials for SRS staff to compile, analyze, and disseminate quantitative information about domestic and international resources devoted to science, engineering, and technology.

Upon completion of the data processing for the major surveys, SRS staff prepares abridged "InfoBriefs" that summarize and highlight new data findings prior to the lengthier publishing of the more detailed statistical reports and analyses. Each year, SRS produces about 30 publications, which can be roughly divided into the following categories:

- Detailed Statistical Tables: reports containing an extensive collection of tabulated data from each of SRS's surveys
- InfoBriefs: highlighting results from recent surveys and analyses
- Periodic "overview" reports such as:
  - *Science and Engineering Indicators*
  - *Women, Minorities, and Persons With Disabilities in Science and Engineering*
  - *National Patterns of R&D Resources*

- Special reports, such as *US Doctorates in the 20th Century, Interstate Migration Patterns of Recent Recipients of Bachelor's and Master's Degrees in Science and Engineering,* and *Gender Differences in the Careers of Academic Scientists and Engineers*

In partnership with other Federal agencies such as the National Institutes of Health, the National Center for Education Statistics, the Bureau of the Census, the Bureau of Labor and Statistics, the U.S. Citizenship and Immigration Services (formerly Immigration and Naturalization Service), and the Department of Commerce's Patent and Trademark Office and International Trade Administration, SRS provides reports and data in a variety of formats and media. All reports are available online (html and PDF) and some are also available in print. In addition, SRS data are available on CD-ROM, and online through downloadable micro-data files. All Federal agencies that perform research and development (R&D) participate in providing the data for the SRS Federal Funds reports. SRS also works closely with universities, industrial firms, professional associations, and international organizations to provide comprehensive and up-to-date reports and information for NSF stakeholders.

III. NSF's Management Plan for Improving Agency Disclosure of Information and Freedom of Information Act (FOIA) Operations

The Foundation makes available an enormous amount of information beyond that required to be disseminated by the Freedom of Information Act. The public can access most information about NSF without having to make a request for information under the FOIA, Section (a)(3) access provisions.

Management plans for improvement of information disclosure and FOIA operations are detailed in NSF's FOIA Management Plan, available online at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=foiamp06

NSF's FY 2006 Information Resources Management (IRM) Strategic Plan defines the Agency's strategic information technology (IT) vision and strategy, consistent with the Agency's mission, goals, and objectives. The IRM plan is both a vision for the future use of information technology in NSF and a description of how current and near term IRM activities help accomplish the Agency's mission. This vision leverages our capabilities to meet NSF's needs today and focuses our activities to provide innovative solutions to meet future challenges. It has been formulated to be a cornerstone of our investment strategy. The plan provides a framework for creating and maintaining the NSF enterprise architecture transition strategy and establishes the course for achieving the goals that are essential to fulfilling the mission of the Agency. NSF's IRM Plan may be found at http://www.nsf.gov/oirm/dis/

A. Agency's FOIA Activities Overview

The National Science Foundation was established by Congress to promote progress in science and engineering. The agency does so primarily through grants and cooperative agreements with colleges, universities, K-12 school systems, businesses, information science organizations and other research institutions throughout the U.S.

NSF is a small agency with one central FOIA office and maintains a single-track system. The Foundation receives approximately 250 to 300 FOIA requests annually. The Foundation receives most FOIA requests electronically, and upon request, is able to disclose releasable records electronically.

An estimated 90% of NSF's FOIA requests are for copies of funded grant proposals. These proposals routinely contain personal information exempt from disclosure under FOIA exemption 6 protecting personal privacy. In addition, they may contain confidential, proprietary business information potentially protected by FOIA exemption 4. Executive Order 12,600 requires the agency to contact the submitter and provide an opportunity to comment before any disclosure. Thus, the agency cannot publicly disseminate these records without going through the required FOIA access procedures.

Abstracts of all NSF-awarded proposals are readily available and searchable on the NSF web. In addition to a description of the proposed research, abstracts contain a wealth of information including award amounts, award instruments, program managers, Principal Investigators (to include email addresses) and other information fields. This resource helps the public identify the proposals in which they are most interested. By helping requesters better describe what records they want, the agency is better able to rapidly process and disclose those records. In addition, NSF posts a list of credit card holders as "frequently asked for" records, and routinely updates them.

B. NSF's FOIA Improvement Initiatives

NSF is a leader in technology and continues to move toward use of completely electronic formats for all program review and funding activities. In light of this, we selected as the primary focus of our FOIA management review, improving and upgrading NSF's FOIA electronic processes.

NSF receives most FOIA requests by email. In addition, we often respond to requests via email and most submitter notices are sent via email. We are investigating the acquisition of a state-of-the-art FOIA logging and tracking system for use by the FOIA Officer, FOIA back-up personnel, and support staff who are assigned additional duties. To enhance our ability to process records electronically we are planning to purchase a copier/scanner to transform paper records to PDF files and become more efficient by producing electronic files in the FOIA office.

In addition to these concentrated focus areas, NSF will also review and improve the NSF FOIA web page to include an update of the FOIA Information Handbook and a review of the web posting of policy statements and copies of frequently requested records.

C. NSF Implementation of Section 207 (d), (e), and (g) of the E-Government Act of 2002

1. Section 207(d) "Categorizing of Information"
The NSF inventory of categorized information products includes information products that are published on the NSF website (http://www.nsf.gov/policies/egov_inventory.jsp) Content and dissemination methods for information published on the NSF website have been addressed

earlier in this report. NSF is in the process of categorizing those information products that are not currently accessible to the public. A catalog of these "unpublished" products will be added to our information inventory in FY07.

2. Section 207(e) "Public Access to Electronic Information"
In order to ensure public access to electronic information NSF continues to manage all records, including electronic records, in accordance with all statutory requirements, including OMB Circular A-130, to identify and schedule all electronic records and transfer to NARA such records as have permanent retention. We anticipate meeting NARA guidelines for existing electronic information systems by the September 30, 2009 deadline, and all information systems will include the required records management and archival functions described in A-130.

3. Section 207(g) "Access to Federally Funded Research and Development"
NSF funds Federal research and development (R&D) activities in science and engineering. This R&D information is available through Research and Development in the United States (RaDiUS), Science.gov, and other means such as the NSF website.

RaDiUS receives funding from NSF for the maintenance and operation of the system, the collection of data and updating the database, and user support. In 1992, the RAND Corporation began the development of the Research and Development in the United States (RaDiUS) database under guidance from the Office of Science Technology Policy and in support of the Critical Technologies Institute, a Federally-funded research and development center that is now the Science and Technology Policy Institute. As developed, and currently operated, the data in RaDiUS come from many sources located throughout the Federal government. RaDiUS takes the data "as is" from Federal agencies, and assembles the agencies' data into the RaDiUS database format. While the data is formatted, the quality of the data is based on the quality of data submitted by the agency.

Historically, an arrangement between RaDiUS and NSF permits RaDiUS to access ASCII text versions of NSF's award details. RaDiUS accesses and downloads all the information that has been added or changed since the last data load to RaDiUS.

The National Science Foundation is a member of the Science.gov Alliance Participants. As a member, NSF visitors can search across Alliance resources via one query. Science.gov allows search queries of Federal science databases, using a complex system of metadata data elements.